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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,148	03/10/2004	Richard J. Duval	DUVA-001	5535

7590

02/22/2005

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EXAMINER

KAUFFMAN, BRIAN K

ART UNIT

PAPER NUMBER

3765

DATE MAILED: 02/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/798,148

Applicant(s)

DUVAL, RICHARD J. *GN*

Examiner

Brian K Kauffman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,7,8 and 10-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,7,8,10-16,18 and 19 is/are rejected.
- 7) ☒ Claim(s) 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The examiner acknowledges that the applicant has amended claims 1, 18, and 19. The examiner also acknowledges that the applicant has cancelled claims 4-6 and 9.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 18 is rejected under 35 U.S.C. 102(b) as being anticipated by Porter et al. (5,908,004). In regard to claim 18, Porter et al. discloses a process of operating an optical stitch regulator for a sewing machine, the process comprising: sensing a movement of fabric relative to a needle of a sewing machine with at least one optical sensor; wherein the movement is comprised of a direction and a velocity of the piece of fabric; generating a movement data representing the movement; and adjusting the motor speed within the sewing machine based upon the movement data (col. 5, lines 61-67 and col. 6, lines 1-9).

Claims 1-3, 7-8, and 10-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Koerner (US2005/0016428).

In regard to claim 1, Koerner discloses an optical stitch regulator system comprising : a sewing machine; and at least one optical sensor (fig. 8) attached to the sewing machine for measuring a movement of a piece of fabric relative to the needle of the sewing machine, wherein the movement is comprised of a direction and a velocity of the piece of fabric, and wherein the optical sensor is in communication with the sewing machine regarding the movement (p. 3, par. 36).

In regard to claim 2, Koerner discloses that the optical sensor is positioned within the sewing platform of the sewing machine (fig. 2).

In regard to claim 3, Koerner discloses that the optical sensor is directed substantially upward (fig. 2).

In regard to claim 7, Koerner discloses that the optical sensor is positioned near the needle of the sewing machine (fig. 2).

In regard to claim 8, Koerner discloses that the optical sensor is positioned in front of the needle of the sewing machine (fig. 2).

In regard to claim 10, Koerner discloses that the sewing machine controls the sewing operation based upon the movement for producing consistent stitches (p. 2, par. 30).

In regard to claim 11, Koerner discloses a control unit (18) in communication between the optical sensor and the sewing machine, wherein the control unit is

comprised of a motion interpreting module that transmits movement information to the sewing machine (fig. 9).

In regard to claim 12, Koerner discloses that the optical sensor is directed downwardly (p. 3, par. 37).

In regard to claim 13, Koerner discloses that a support member is attached to the sewing machine and supporting the optical sensor (p. 3, par. 37).

In regard to claim 14, Koerner discloses an attachment member that attaches the support member to the upper portion of the sewing machine (p. 2, par. 37).

In regard to claim 15, Koerner discloses that the optical sensor is comprised of a light source and a light receiver, wherein the light receiver detects light reflected by a piece of fabric (fig. 8).

In regard to claim 16, Koerner discloses that the light source is a light emitting diode (fig. 8).

In regard to claim 18, Koerner discloses a process of operating an optical stitch regulator for a sewing machine, the process comprising: sensing a movement of fabric relative to a needle of a sewing machine with at least one optical sensor; wherein the movement is comprised of a direction and a velocity of the piece of fabric; generating a movement data representing the movement; and adjusting the motor speed within the sewing machine based upon the movement data (p. 3, par. 36).

In regard to claim 19, Koerner discloses an optical stitch regulator system, comprising: a sewing machine carriage (86); and at least one optical sensor (64) attached to the sewing machine carriage for measuring the movement of a piece of

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fabric relative to the needle of a sewing machine, wherein the movement is comprised of a direction and a velocity of the piece of fabric, and wherein the optical sensor is capable of communicating with the sewing machine regarding the movement (p. 3, par. 36).

Allowable Subject Matter

Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

Claim 17 specifically requires that the light sensor be positioned within the sewing platform of the sewing machine and also extend above an upper surface of the sewing platform.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

Applicant's arguments, see pp. 8-9, filed 11/29/04, with respect to the rejection(s) of claim(s) 1-11, 15, and 19 under 35 U.S.C. 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of

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Koerner US 2005/0016428 under 35 U.S.C. 102(e). Koerner discloses a sewing machine with a motion detector that measures the velocity and direction of the fabric. See the above rejections for further explanations.

Applicant's arguments with respect to claims 12-14 and 16-17 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 11/29/04, with respect to the rejection of claim 18 under 35 U.S.C. 102(b) have been fully considered but they are not persuasive. The applicant argues that Porter et al. does not disclose at least one optical sensor attached to the sewing machine for measuring a movement of a piece of fabric relative to a needle of the sewing machine, wherein the movement is comprised of a direction and a velocity of the piece of fabric. The applicant is correct that Porter et al. does not disclose measuring the movement of the fabric, however that is not what is claimed in claim 18. Claim 18 requires sensing the movement, not measuring the movement. The term "sensing" is not as limiting as the term "measuring". Porter et al. does disclose sensing the movement of the fabric (col. 5, lines 61-67 and col. 6, lines 1-9) since it detects that the fabric is in fact moving. If a device senses movement, it is inherent that the device also senses direction and velocity since all movement consists of direction and velocity. Thus, Porter et al. does disclose at least one optical sensor attached to the sewing machine for sensing a movement of a piece of fabric relative to a needle of the sewing machine, wherein the movement is comprised of a direction and a velocity of the piece of fabric as claimed in claim 18.

Conclusion

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K Kauffman whose telephone number is (571)272-4988. The examiner can normally be reached on M-F every week.

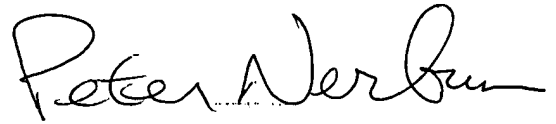
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Calvert can be reached on (571)272-4983. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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BKK
2/17/05

A handwritten signature in black ink, reading "Peter Nerbun". The signature is fluid and cursive, with the first name "Peter" and last name "Nerbun" clearly distinguishable.

Peter Nerbun
Primary Examiner